King-Hackney, Ashadee

From: Ackerman, Charmagne
Sent: Tuesday, September 16, 2014 8:27 AM
To: King-Hackney, Ashadee
Subject: RE: FOIA Request EPA-R5-2014-010229
Attachments: Ashtabula Tire Flare Emissions.pdf

From: Switzer, Kristen [mailto:Kristen.Switzer@epa.ohio.gov]
Sent: Thursday, June 05, 2014 12:10 PM
To: Ackerman, Charmagne
Subject: FW: Ashtabula Tire Flare

Hi Charmagne.

Please find attached the emissions estimates for the flare at Ashtabula Tire Partners. Also, directly below this message are questions I had regarding flare operation and responses from the consultant. I agree that some sort of routine maintenance/monitoring of the flare may be needed in the permit document.

I will follow up with more of the information we talked about yesterday later.

Thanks,
Kristen

Kristen Switzer
Environmental Specialist
Division of Air Pollution Control

If your address book currently has my email as Kristen.Switzer@epa.state.oh.us please change it to Kristen.Switzer@epa.ohio.gov In the coming months, the 1st address will no longer work.

OhioEPA

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From: Martin, Dan [mailto:dmartin@louisberger.com]
Sent: Wednesday, February 05, 2014 3:37 PM
To: Switzer, Kristen
Subject: RE: Ashtabula Tire

Hi Kristen,
Responses to your questions are below. Please let me know if you have any additional questions. Thanks, Dan

1. Do the pyrolysis units burn natural gas, as well as, syngas? **The pyrolysis unit uses natural gas or propane only during the initial start-up (approximately 2 hours). Normally for all subsequent start-ups there will be sufficient amount of syngas gas stored to eliminate the need to use natural gas. However, in the event of the loss of syngas the system will be configured to use natural gas for subsequent start ups as well.**
2. When and why would emissions from the pyrolysis process be flared? **During the start-up and shutdown of pyro units the syngas is off-spec, so it will be flared. In the event of power generators being down the syngas in excess of the facility's storage capacity will be flared off. Additionally, there will be an emergency relief piping leading from the pyro units to the flare – in the highly unlikely event of a total power failure (and emergency power failure) the blowers inducing vacuum in the system will go down, leading to pressurization of the pyrolysis retort; in this event a relief valve will open and channel gas into an emergency knock-out vessel (to capture entrained liquids) and then directly to flare.**
3. Where is the flare located in relation to the pyrolysis processes? Looking at the "Simplified ACTI Pyrolysis Process Diagram", where would the flare be located? **The flare is located on the southwest corner on the property, west of the pyrolysis, power generation buildings and the gas storage (it is miss-spelled on the drawing as "flair" – sorry). The connection to the flare is shown both on the "Process Flow Diagram", and the drawing showing the layout of the pyrolysis building. On the "Simplified ACTI Pyrolysis Diagram" the flare connections would be from the "pressurized gas storage" and also form the line carrying "gasified product vapors".**
4. How will the flare be operated? Will it have a continuous pilot or would it be activated as needed? Will release of gases to the flare be a planned activity? **The current design includes a constantly operated air blower and piezo igniter (not a pilot) which would ignite the mixture when the syngas is channeled to the flare. An alternative design (if required by the fire officials) may include a constantly operated pilot light. A fully redundant blower/igniter/pilot design will be utilized due to the emergency function of the flare. The release of gases to the flare during start-up and shutdown is a planned activity. However, since the flare also fulfills emergency function, it must stay operational any time any of the pyro units are running.**

Daniel Martin, P.E.
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From: Switzer, Kristen [mailto:Kristen.Switzer@epa.ohio.gov]
Sent: Friday, January 31, 2014 11:37 AM
To: Martin, Dan
Subject: RE: Ashtabula Tire

Hi Dan,
Per my voicemail, these are the additional questions I have regarding the pyrolysis units:

- Do the pyrolysis units burn natural gas, as well as, syngas?
- When and why would emissions from the pyrolysis process be flared?
- Where is the flare located in relation to the pyrolysis processes? Looking at the "Simplified ACTI Pyrolysis Process Diagram", where would the flare be located?
- How will the flare be operated? Will it have a continuous pilot or would it be activated as needed? Will release of gases to the flare be a planned activity?

Thanks Dan. Have a nice weekend.

Kristen

From: Martin, Dan [mailto:dmartin@louisberger.com]
Sent: Thursday, January 30, 2014 11:25 AM
To: Switzer, Kristen
Subject: RE: Ashtabula Tire

Kristen,
Thanks for the update. Responses to your questions:

1. No single HAP from the Tank should be over 1.0 ton per year.
2. The syngas from this process has water vapor, sulfuric constituents and siloxanes as contaminants. The gas will be cleaned using the temperature swing technique followed by a carbon bed treatment. The resulting gas will have concentrations of these pollutants close to those in the pipeline natural gas, as required by the engine manufacturers in order to maintain warranty.

Regards, Dan

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From: Switzer, Kristen [mailto:Kristen.Switzer@epa.ohio.gov]
Sent: Thursday, January 30, 2014 10:32 AM
To: Martin, Dan
Subject: RE: Ashtabula Tire

Hi Dan.

Sorry for my delayed response. I have been out of the office.

The permit limit will be the NSPS allowable. It appears that testing will be required as well.

I have a couple other questions:

1. The application states that one of the tanks could emit 1.8 tons of HAPs per year. Would this source emit more than 1.0 ton per year of any single HAP?
2. How is the "syngas" cleaned? Would you expect the "dirty" syngas to have a high sulfur content?

Thanks,
Kristen

From: Martin, Dan [mailto:dmartin@louisberger.com]
Sent: Tuesday, January 28, 2014 3:07 PM
To: Switzer, Kristen
Subject: RE: Ashtabula Tire

Kristen,
A question came up regarding emission limits that will be written in the permit. When NSPS applies will the permit limit be the NSPS allowable? Thanks, Dan

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From: Martin, Dan
Sent: Monday, January 27, 2014 9:43 AM
To: 'Switzer, Kristen'
Subject: RE: Ashtabula Tire

Hi Kristen,
In response to your questions:

1. We believe the turbines are subject to 40 CFR Part 60, Subpart KKKK but emissions will be below NSPS allowable (The allowable emissions for NOx and SO2 in the NSPS are 96 ppm at 15% oxygen and 0.060 lb SO2/MMBtu respectively. The emissions from these turbines are expected to be 45 ppm at 15% oxygen and 0.00059 lb SO2/MMBtu, below the NSPS allowable).

2. The turbines will be running on syngas, not natural gas.

Please let me know if you have any more questions. Thanks, Dan

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From: Switzer, Kristen [mailto:Kristen.Switzer@epa.ohio.gov]
Sent: Friday, January 24, 2014 5:05 PM
To: Martin, Dan
Subject: Ashtabula Tire

Hi Dan.

I have a couple questions for you regarding Ashtabula Tire:

Do you think the turbines would be subject to 40 CFR Part 60, Subpart KKKK? If not, why?

Would the turbines ever use natural gas as a fuel?

Thanks,
Kristen

Kristen Switzer
Environmental Specialist
Division of Air Pollution Control

If your address book currently has my email as Kristen.Switzer@epa.state.oh.us please change it to Kristen.Switzer@epa.ohio.gov In the coming months, the 1st address will no longer work.

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